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(54) Title: MAMMALIAN *elk* POTASSIUM CHANNEL GENES

(57) Abstract

The present invention is directed to the isolation, cloning and sequencing of mammalian *elk1*, *elk2*, and *EAG2* K channel genes. The amino acid sequences of the expressed proteins are also provided. Information on the distribution of the gene and their expression products in various relevant nervous system tissue is also provided. The gene and protein sequences and the distribution pattern information is helpful in the research and development of pharmaceuticals with specific action on the different K channels.